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ABSTRACT

This guide was created to accompany workshops on learning to use electronic networks. It is less than a complete introduction to networks, but is a good tool for those learning to use them. An introduction defines networks, discusses the most important of them, and provides other useful concepts. Understanding and using electronic mail are reviewed, and discussion groups are introduced. The etiquette of network use and how to transfer material are discussed. Five useful bibliographies are attached, listing: (1) network guides and books (6 sources); (2) network guides and file transferable documents (14 sources); (3) periodicals (3 sources); (4) library guides (3 sources); and (5) other "good stuff" (5 sources). A list of seven directories of computer discussion groups is included. (SLD)

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ED 360 961

# NETWORK KNOWLEDGE for the NEOPHYTE

## Stuff You Need to Know in Order to Navigate the Electronic Village

Version 3.0
31 March 1993

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NET*WORK*SHOP Crew

IR054635

Available from LISTSERV@BINGVMB -- get NETKNOW NEOPHYTE BI-L
or by anonymous ftp from hydra.uwo.ca --
/pub/libsoft/NETWORK_KNOWLEDGE_for_the_NEOPH.TXT

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DISCLAIMERS

1. This guide was created to accompany all-day workshops on "Getting Connected to the Internet," first given in March and May 1992. It has evolved into somewhat more than simply a set of class handouts, but it remains far less than a "complete introduction to networking." It is necessarily brief, and should not be used as a stand-alone resource.

   When used in conjunction with lecture, demonstration, and hands-on teaching, it is a good tool. The bibliography points to several excellent guides for use in situations when greater detail is needed.

2. The network landscape is constantly transforming itself. Resources appear, mutate, merge, migrate, and disappear with impunity. I make no claim that the information contained here will be accurate by the time you read it.

   All bibliographic sources were alive and well as of the date on the title page, but that was long ago (in net-time). Please let me know of major errors, but learn to live with the small stuff.

3. This guide was developed specifically for the networking environment at Binghamton University. Some explanations and examples may not be universally applicable. If I do not address your particular situation -- sorry. If a particular statement seems false for your circumstances -- ignore it.

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INTRODUCTION -- Networks, Protocols, Gateways

NETWORK A set of computers that all use the same PROTOCOL to exchange information among themselves.

PROTOCOL A standard that defines the method of communication among computers. It is the language and the grammatical rules that machines agree to use in order to understand each other.

The protocol for the Internet is known as TCP/IP -- "Transmission Control Protocol / Internet Protocol."

SMTP -- "Simple Mail Transfer Protocol." The most commonly-used service that moves millions of messages through hundreds of networks, even when the sender and the recipient use different local mail systems.

Some important networks:

INTERNET Begun in the early 1970s by the federal government in an effort to link its many research and military computers. It is based on protocols used by UNIX computers. Sometimes called the NSF net.

USENET Begun in 1979 to link two computers in North Carolina. Also UNIX-based, but focused more on news and discussion than on research.

BITNET Begun in 1981 with the intent of linking together IBM machines at research universities in the eastern United States. Its European counterpart is EARN; its Canadian counterpart is NETNORTH.

These began as separate networks, but as their protocols were made more compatible, and GATEWAYS were created among them, they became an amorphous jumble (some would say a "jungle") that is usually referred to simply as "The Internet."

GATEWAY A computer that provides both a physical link and a protocol translation program that permits a network to send information to and through another network.

Gateways are like doors that allow you to move from one room to another. Most are invisible to network users.

Some commercial gateways are described below under "inter-connectivity."

One writer has described the Internet as "a global community of computing resources, . . . an interconnected data-highway that spans the earth. . . . [It is] large, dynamic, and relatively unfathomable, yet it can sit on your desk top, at your command."

Some Internet statistics as of February 1993:

7,080 distinct networks
52 nations
29,741,530,300 packets of data transferred
That's nearly five and one-half TRILLION bytes.

And these figures do not represent the total network traffic, but only the part that traversed the NSF backbone in the United States.

Figures for ten months earlier (April 1992) were:

4,084 networks
42 nations
6,520,442,000 packets (1.23 trillion bytes)

In May 1990 the total traffic was "only" 3.15 billion packets.

NREN — The National Research and Education Network, a "new" network proposed by the federal government to try to bring a semblance of order to the situation. It will absorb and expand the Internet.

It will also be able to transmit more data at faster speeds, something that is absolutely necessary as the amount of traffic on the Internet continues to grow exponentially.

The bill to create the NREN has been signed into law, but much work remains to be done to bring it to actuality.

Other networks you may hear about:

FidoNet -- a series of DOC-based computers that uses modems to directly link one PC to the next. It is the largest privately-owned computer network in the world.

FrEdMail -- a consortium of more than two hundred schools and universities around the world dedicated to linking students and teachers.

# I -- ELECTRONIC MAIL ("e-mail")

## UNDERSTANDING ELECTRONIC MAIL ADDRESSES.

Just as we all have an address that identifies us by house number, street, city, state and nation, each person using e-mail has his or her own unique network address. It consists of two major parts:

- the person's name as known to the computer
- the name and location of the computer itself

These are separated by an "at sign" -- @.

For example, my computer "name" is "mraish" and the name/location of my computer is "bingvmb.BITNET". So my full e-mail address is

mraish@bingvmb.BITNET

(In practice the ".BITNET" is often ignored. Mail will reach me at mraish@bingvmb.)

However, because the computer I use has a gateway to the Internet, I also have the Internet address

mraish@bingvmb.cc.binghamton.edu

Since Internet addresses are a bit more complicated, let's dismantle this address, starting at the far right end.

DOMAIN This identifies the network or sub-network.

Networks outside the United States are identified by two-letter codes: CA for Canada, ES for Spain, TW for Taiwan, UK for the United Kingdom, and so forth.

Networks within the United States are identified by the nature of their owners: COM for commercial companies, EDU for educational institutions, GOV for government facilities, MIL for military sites, NET for network support groups, and ORG for other miscellaneous organizations.

My internet address ends in "edu" because my computer is at a university.

SUB-DOMAIN This identifies a sub-set of the domain.

At European universities the computer is usually identified by "ac" and the name of the institution where it is located. For example, if the last part of an address was "oxford.ac.uk" you would know that the person was writing from a computer at Oxford University in England.

In the United States we do not use the "ac" part, but we do often (but not always) include the name of the university. Did you notice the "binghamton" in my Internet address?

Sometimes a second sub-domain is necessary, to distinguish machines located in different areas of the same institution. That is why I have "cc" in my address -- to identify the computer center on campus, where my machine is located.

HOST or NODE The name of the machine itself.

In the beginning computers were named by numbers and acronyms, such as "bingvmb." The trend lately is to give them names that are more interesting and clever, and thus easier to remember. Some common names are Orion, Merlin, Mozart, Snoopy, and Spock.

When an institution owns several computers, they will often have related names, such as the planets, the signs of the zodiac, or the names of the seven dwarfs. (The most popular host name is Venus, followed by Pluto and Mars.)

Technically a "host" is a machine that has users and mailboxes, while a "node" does not -- it simply forwards mail. In common usage, however, this distinction is largely ignored.

Now let's look at the part in front of the @.

When you get an account on a machine the institution will usually assign you a "userid" -- a user identification "name." Sometimes you can select one you like, but most often it is created from your real name. Sometimes it is all numbers.

In the BITNET world it cannot be longer than eight characters. Internet userids can be longer.

Some BITNET examples:

| shorties | same library | unusual ones |
|---|---|---|
| ROSE@PUCC | LIBHJB@BYUVM | SV#3@LAFYACS |
| PPH@UNC | LIBMME@BYUVM | $M$LB46@LUCCPUA |

Some Internet examples:

```
0100106@VAXA.NORTHWEST.MISSOURI.EDU
Elizabeth_Knight@CARLETON.EDU
cijs10@vaxb.strathclyde.ac.uk
hagasawa@TANSEI.CC.U-TOKYO.AC.JP
info16@HAL.UNM.EDU                    (from 2001?)
yhtseng@HARDY.U.WASHINGTON.EDU        (is there a Laurel?)
```

Also, some people are more difficult to reach than others because their messages must go through several gateways before they can be delivered. So the person's "name" might include a "bang" (!), a per cent sign (%), or double-colons (::), all of which are simply intermediate routing symbols that you don't need to worry about (except to type them correctly!).

Some examples:

```
JDIP%delphinus.lib.umb.edu@CS.UMB.EDU
decwrl!fernwood!well!nola@LLL-WINKEN.LLNL.GOV
```

INTER-CONNECTIVITY The need to provide links (gateways) among dissimilar networks and computers, so anyone can send mail to anyone else, regardless of the type of computer or network involved.

Several commercial companies have been created to furnish access to the Internet to people who would not otherwise be able to connect. They charge users by the minute, or by the message, or a flat rate. Some of the larger firms are listed below. (Notice that the addresses end in "com" to denote their status as commercial enterprises.)

```
AppleLink  -- user@applelink.apple.com
AT&T Mail  -- user@attmail.com
CompuServe -- 12345.678@compuserve.com
MCI Mail   -- user@mcimail.com
```

## II. ON BEYOND E-MAIL

DISCUSSION GROUPS (or "lists") — Specialized mail systems through which people exchange messages with others who share a common interest. These groups are more than bulletin boards; they can best be described as multi-participant party line telephone conversations.

Every person who joins a list (or "subscribes" although there is no exchange of money) can send a message to the host computer that then re-distributes it to every other subscriber. Any member can reply to the message (or "posting") and this reply will, in turn, be distributed to every one else in the group. The electronic conversation continues as long as anyone is interested in discussing the subject at hand. Then someone else raises a new issue and the process begins anew.

The program that operates discussion groups on BITNET is known as LISTSERV. A similar program exists on the Internet, and although it is not technically the same, most people speak of "listserv lists" in the same sense of using the "Xerox" machine or Kleenex.

Discussion groups exist for virtually every subject imaginable. A tiny sampling:

AILIST -- artificial intelligence
BRASS -- for small ensemble brass musicians
Dead Teachers Society Discussion List
-- one of several education-related groups
DOROTHYL -- women mystery writers
ESPER-L -- Esperanto
GRANOLA -- the vegetarian life style
HUMANIST -- computing in the humanities
MEXICO-L -- news of Mexico
ORIGAMI -- Japanese art of paper folding
PHOTO-L -- the "Photography Phorum"
SCIFRAUD -- fraud in science
Traditional Nutty Stuff -- an electronic humor magazine

For librarians there are lists for every brand of OPAC, for catalogers of rare books, for art librarians, for bibliographic instruction concerns, for library administrators, etc. etc. etc.

Several "lists of lists" have been compiled to help you find ones of interest. See the "Directories of Computer Discussion Groups" (at the end of this document) for instructions on how to get these "list-ographies."

NETWORK "NETIQUETTE" — Customs and practices that have been adopted in order to promote effective electronic communication.

Most of these are simply matters of common courtesy, but the electronic world offers a few extra wrinkles. Here are a few matters to keep in mind when sending message over the network, especially messages that are distributed to more than one person.

1. Always include a descriptive subject line in your mail header (the "envelope" that precedes your actual message).

2. Avoid sending emotionally-charged messages (called "flames") that generate heat but not light. These tend to cause "flame wars" that only make everyone angry.

3. DON'T PUT YOUR MESSAGE IN ALL UPPER CASE LETTERS. This has the appearance of shouting.

4. Use acronyms and "emoticons" to indicate mood. Since the network cannot convey the sort of non-verbal clues that take place in face-to-face conversations, simple "smiley face" symbols and common acronyms can help set the tone of your message. For example:

"Emoticons" -- turn your head sideways to see them.

| | |
|---|---|
| :-) | happy |
| :-( | sad |
| :-)= | bearded humor |
| 8-) | happy with glasses |
| (:-\|K- | formal message |
| =\|:-)= | Uncle Sam |

Acronyms -- devised originally to reduce the size of messages so they could be transmitted faster.

| | |
|---|---|
| BTW | by the way |
| OTOH | on the other hand |
| WYSIWYG | what you see is what you get |
| IMHO | in my humble opinion :-) |

## III -- REMOTE LOGON

TELNET and TN3270 — Programs that permit you to log on to and operate a computer other than your own.

These are essentially the same thing. Check with your local computer experts on which is appropriate for use with your equipment.

The most common reason for wishing to log on to a "remote" computer is to search another library's catalog. But there are lots of other interesting databases out there, ranging from geographic names to weather forecasts. See the items listed in the bibliographies for more information on these fascinating resources.

TELNET and tn3270 allow you to search remote databases, but they do not permit you to retrieve the actual files. To capture documents you must use ftp.

## IV -- GETTING STUFF FROM SOMEWHERE ELSE

ftp — "File Transfer Protocol" -- a process that allows you to transfer files over the Internet from one mainframe computer to another. "Anonymous ftp" allows you to do this on machines that have been programmed to accept requests from people who do not have accounts on them.

Thousands of interesting documents and software programs are stored on computers around the world, and copies are offered to anyone who has access to the anonymous ftp procedure. See the items listed in the bibliographies for more information on how to access these files.

## V. OTHER TOOLS

As the network has become larger and more complex, trying to remember a particular document and its location has become increasingly difficult, and keeping track of hundreds of telnet and ftp addresses, log on/off procedures, and other details has become nearly impossible. The network, while vastly rich in resources, is simply too cumbersome for anyone to master.

In an effort to solve this dilemma various network navigation tools have been developed. Their overall intent is to make the net "transparent," so you can find things without needing to know what they are called or where they are located. Each of these tools uses some sort of user-friendly interface to translate your request into network commands, search files, and locate (and sometimes even fetch) the document you desire.

The following descriptions are brief, but are as much as can be covered in this beginning tutorial. For further information, consult the works cited in the bibliographies.

ARCHIE — locates programs, data, and text files stored on hundreds of computers around the world.

The system maintains a database of all the file names at sites that allow anonymous ftp. When you enter your search terms it automatically identifies files that contain those words, and tells you where they are located. With this information you can then get the files through regular ftp procedures.

WAIS — not only locates files based upon their names (as Archie does), but also by knowing what is in the files. It can also display the documents for you.

Wide Area Information Servers, pronounced "wayz," allow you to search through archives of files for which indexes exist. The program searches the text itself, not just the file name, for your desired term. The results are then presented in a weighted list, with those judged "best" listed first, and others listed in decreasing order of relevance. You may then select items you want to see in full, and the system will retrieve them for you.

GOPHER — allows you to browse for network resources using menus. When you find something you want, gopher will get it for you.

You can use gopher to search thousands of sites and millions of documents without knowing a single Internet address, file name,

or locally idiosyncratic command. You just sniff around "Gopher Space" like you would browse your local library, using structured menus to guide you along the way.

Gopher systems are multiplying rapidly, and becoming more sophisticated. And since they all connect to one another, as well as to various WAIS and Archie servers, you can explore virtually any part of the net using a single, relatively simple, interface.

Gophers systems are not perfect -- for example, there is no unified subject vocabulary, so different systems will use different terms to organize similar materials -- nor do they provide you with anything you could not get directly via telnet or ftp. But they do tend to uncomplicate things. I especially appreciate the "book mark" feature that allow me to save complex searches and re-execute them with a single keystroke or click of the mouse.

VERONICA is a fledgling, but very promising attempt to improve upon gopher.

The drawback to gopher systems is that you need to negotiate several layers of menus before you locate what you want. Veronica ("Very Easy Rodent-Oriented Net-wide Index to Computerized Archives," and also a play on Archie) permits you to search gopher menus by keyword, so you can more quickly find ones that are likely to have materials of interest.

There are not yet many Veronica systems in operation, so the ones that do exist are heavily used, and tend to be very slow to respond. As more and better Veronica systems are developed, they might well become even more popular than gopher is at the moment.

WORLD WIDE WEB (or WWW) does much the same thing as gopher and WAIS, but uses hypertext as its basic organizational design.

WWW is not as fully developed as gopher, nor as widely available. But it holds promise as the most flexible and powerful of the network navigation tools. Its major drawback is that in order to work as intended, it needs documents that already exist in hypertext format, and these simply are not yet common on the net.

BIBLIOGRAPHY A: Network Guides, Books


Jonathan Kochmer and NorthWestNet

1993 The Internet Passport: NorthWestNet's Guide to Our World Online. NorthWestNet: 15400 SE 30th Place, Suite 202, Bellvue, WA 98007. [E-mail: passport@nwnet.net]

NOTE: The publishers plan to make this available via the net, but details as to where and/or how will not be known until mid-summer 1993.

Brendan P. Kehoe

1992 Zen and the Art of the Internet: A Beginner's Guide to the Internet, 2nd edition. Prentice-Hall: Englewood, NJ.

NOTE: An electronic version of the first edition is widely available from many network sites.

Ed Krol

1992 The Whole Internet User's Guide & Catalog. O'Reilly & Associates: 103 Morris Street, Suite A, Sebastopol CA, 95472. [E-mail: nuts@ora.com]

Tracey LaQuey and Jeanne C. Ryder

1993 The Internet Companion: A Beginner's Guide to Global Networking. Addison-Wesley: Reading, Mass.

NYSERNet

1992 NYSERNet New User's Guide to Useful and Unique Resources on the Intenet. NYSERNet: Syracuse, New York.

Roy Tennant, John Ober, and Anne G. Lipow

1992 Crossing the Internet Threshold. Library Solutions Institute, 2137 Oregon St., Berkeley CA 94705.

BIBLIOGRAPHY B: Network Guides, FTP-able Documents

The date is the latest of which I am aware. Updates could appear at any time.

The file names include all directories and sub-directories in the format

/directory/sub-directory(ies)/filename

You can get the file by using the full path name (including the slashes) or you can change directories one level at a time and browse along the way. If you see a related README file you should get and read it before you try to get the full file.

Note that almost all of these sites contain other documents. You may well find the same items in several places. But not all will be the same versions, so remember check the date of anything you fetch.

T. Matthew Ciolek. Internet Voyager: Social Scientist's Guidebook to AARNET/INTERNET Online Information Services. (March 1993)

FTP: coombs.anu.edu.au -- 150.203.76.2
FILE: /coombspapers/coombswork/coombs-computing/
internet-voyager-1-2.txt [part 1]
internet-voyager-2-2.txt [part 2]

John December. Information Sources: The Internet and Computer-Mediated Communication. (February 1993)

FTP: ftp.rpi.edu -- 128.113.1.5
FILE: /pub/communications/internet-cmc

Laine Farley, editor. Library Resources on the Internet: Strategies for Selection and Use. (August 1991)

FTP: ftp.unt.edu -- 129.120.1.1
FILE: /library/libcat-guide

Lee Hancock. Internet/Bitnet Health Sciences Resources. (February 1993)

FTP: ftp.sura.net -- 128.167.254.179
FILE: /pub/nic/medical.resources.xxx
where xxx = latest release date

Judi Harris and the students of TEB 8000. Internet Resources Directory, Part 3: File Archives (FTP Sites) of Interest to Educators. (July 1992)

FTP: ftp.virginia.edu -- 128.143.2.7
FILE: /pub/IRD/IRD-FTP-sites.txt

Judi Harris and the students of TEB 8000. Internet Resources Directory, Part 4: Ideas for Curricular Infusion of Telecomputing Tools and Resources. (July 1992)

FTP: ftp.virginia.edu -- 128.143.2.7
FILE: /pub/IRD/IRD-infusion-ideas.txt

NOTE: Updated versions of the above two documents are expected in June 1993. These, plus some other useful items produced by the same group, will be posted at tcet.unt.edu in the directories
pub/telecomputing-info/IRD,
pub/telecomputing-info/ed-infusions, and
pub/telecomputing-info/gif-gallery.

J. Paul Holbrook and Christine S. Pruess, editors. CICNet Resource Guide. (June 1992)

FTP: nic.cic.net -- 192.131.22.2
FILE: /pub/resourceguide
This directory contains the latest information on updates and on-line versions of the guide.

Robert Elton Maas. MaasInfo.TopIndex: Toplevel Index to All Major InterNet Indexes. (February 1992)

FTP: niord.shsu.edu -- 192.92.115.8
FILE: /maasinfo/MaasInfo.TopIndex

Gary Scott Malkin and April N. Marine. FYI on Questions and Answers: Answers to Commonly Asked "New Internet User" Questions, (Network Working Group RFC 1325). (May 1992)

FTP: nic.ddn.mil -- 192.112.36.5
FILE: /rfc/rfc1325.txt

Jerry Martin. There's Gold in them thar Networks!, or, Searching for Treasure in all the Wrong Places, (Network Working Group RFC 1402). (January 1993)

FTP: nis.nsf.net -- 35.1.1.48
FILE: /documents/rfc/rfc1402.txt

Dana Noonan. A Guide to Internet/BITNET. (June 1992)

FTP: hydra.uwo.ca -- 129.100.2.13
FILE: /libsoft/guide1.txt

Deidre E. Stanton. Library and Information Resources Networks: A Bibliography. (May 1992)

FTP: infolib.murdoch.edu.au -- 134.115.80.10
FILE: /pub/bib/stanton.bib

NOTE: This can be gotten in either ASCII or WordPerfect format. But be aware that the WP document is formatted for International paper that is narrower and longer than our American 8½ x 11 inch stuff. So it won't print very well if you download it to your PC. It is 101 pages long.

Michael Strangelove. The Electric Mystic's Guide to the Internet: A Complete Directory of Networked Electronic Documents, Online Conferences, Serials, Software, and Archives Relevant to Religious Studies. (February 1993)

FTP: panda1.uottawa.ca -- 137.122.6.16
FILE: /pub/religion/electric-mystics-guide-v1.txt
NOTE: Volume 2 is expected to be available Summer 1993.
NOTE: Also via listserv@uottawa as MYSTICS V1-TXT

SURAnet. Information Available on the Internet: A Guide to Selected Sources. (Updated weekly; posted 9 am Mondays).

FTP: ftp.sura.net -- 128.167.254.179
FILE: /pub/nic/infoguide.<date>.txt
NOTE: Before you attempt to retrieve the guide, get and read the file 00-README FIRST.

## BIBLIOGRAPHY C: Periodicals

NETMONTH: An Independent Guide to BITNET

Monthly (more or less) electronic newsletter of interesting articles and information. To subscribe, send the following command to listserv@marist

subscribe netmonth Your Name.

Network News: An Update to Libraries and Information Resources on the Internet

Sponsored by Metronet in Minneapolis, this short monthly newsletter has many useful items specificially focused on libraries and media centers. To subscribe, contact Dana Noonan at noonan@msus1.msus.edu.

NYSERNet USER and NYSER.Update

NYSERNet USER is published three times a year in both print and electronic formats. It has good articles not only about NYSERNet and the New York area, but also about the net in general.

NYSER.Update is an on-line report intended to fill the gap between issues of the NYSERNet USER.

To subscribe to either of these send an e-mail message to

nyser-user-request@nysernet.org

For further information call 315-443-4120.

## BIBLIOGRAPHY D: Library Guides


Bill Barron
UNT's Accessing On-Line Bibliographic Databases. Latest edition is January 15, 1993. Available via anonymous ftp from ftp.unt.edu, directory LIBRARY, filename LIBRARIES.TXT.

Arranged alphabetically by name of institution. Has several appendices explaining various OPAC commands.

Dana Noonan
A Guide to Internet/BITNET, parts II, III: Internet Libraries.

Available via e-mail from listserv@ndsuvm1.BITNET, or via anonymous ftp from vm1.nodak.edu, directory NNEWS, filenames GUIDE2.NNEWS and GUIDE3.NNEWS.

Part II covers library catalogs in the United States. Part III covers library catalogs outside the United States, arranged by country, then alphabetically.

(Part I, covering e-mail, mailing lists, ftp, Gopher, and other Good Stuff, is available as GUIDE1.NNEWS.)

Art St. George and Ron Larsen
Internet-Accessible Library Catalogs and Databases. Latest edition is July 15, 1992. Available via anonymous ftp from ariel.unm.edu, directory LIBRARY, filename INTERNET.LIBRARY.

121 pages, arranged geographically. Also includes many campus wide information systems.

BIBLIOGRAPHY E: Other Good Stuff


Wilfred Drew
1992 Not Just Cows: A Guide to Internet/Bitnet Resources in Agriculture and Related Sciences. State University of New York, Morrisville College of Agriculture and Technology: Morrisville, NY.

Rick Gates. The Internet Hunt.
This is a monthly "contest" to see who can be the first to answer ten questions using only Internet resources. The contest is posted to several discussion groups on the first of each month, with the answers posted later in the month. Previous hunts are archived at several ftp sites.

Scott Yannoff. Special Internet Connections.
Updated every week or so, this short list (usually five or six pages) provides access information and brief notes on about one hundred popular / new / interesting network resources. To subscribe contact Scott Yanoff at yanoff@csd4.csd.uwm.edu.


The following documents provide information on how you can acquire network access if you are not affiliated with an organization, such as a university or research center, that has an institutional connection.


Genevieve Engel. Dial-Up Access Provider List. (January 15, 1993)

FTP: dla.ucop.edu -- 128.48.108.25
FILE: /pub/internet/dial-access

James Milles. Individual Access to Internet. (February 12, 1993)

FTP: liberty.uc.wlu.edu -- 137.113.10.35
FILE: /pub/lawlib/internet.access

## DIRECTORIES OF COMPUTER DISCUSSION GROUPS

1. Directory of Scholarly Electronic Conferences, 6th Revision (February 1993), edited by Diane K. Kovacs and The Directory Team.

   Entries are arranged by broad subject fields, and each is accompanied by a short description, instructions for subscribing, and the name of the owner/moderator.

   The list is available from listserv at kentvm in nine parts:

   acadlist readme = general information and overview
   acadlist file1 = Anthropology -> Education
   acadlist file2 = Geography -> Library Science
   acadlist file3 = Linguistics -> Political Science
   acadlist file4 = Psychology -> Writing
   acadlist file5 = Biological Sciences
   acadlist file6 = Physical Sciences (included Computing)
   acadlist file7 = Business, Academia, News
   acadlist file8 = Computer Science and related topics

2. BITNET Listserv lists.

   This provides addresses and one-line descriptions of BITNET groups only. It is available from your nearest listserv using the command "list global." If the node you ask doesn't have the list, it will direct you to one that does.

3. List of Lists.

   This includes both BITNET and Internet lists. It gives addresses, descriptions, instructions and contact persons. The latest version, dated September 10, 1992, is VERY large, so is sent in several pieces.

   It is available from listserv at ndsuvm1 as

   interest package

   It is also available by anonymous ftp from ftp.nisc.sri.com (192.33.33.22).

   directory = netinfo
   file name = interest-groups

4. Merged list of LISTSERV lists and Interest Group Lists.

This list, maintained by Dartmouth College, is updated monthly. However, each entry is only one line long, so does not provide much information. It is available by anonymous ftp from dartcms1.dartmouth.edu (129.170.16.19).

directory = siglists

It is also available from listserv at dartcms1.

It comes in several pieces, so regardless of how you get it, you should first get the READ.ME file that provides further instructions.

5. Library-Oriented Computer Conferences and Electronic Serials.

This list is maintained by Charles Bailey, Jr., at the University of Houston Libraries. The latest update, dated January 11, 1993, includes more than 100 conferences and 18 serials. It is available by anonymous ftp from hydra.uwo.ca (129.100.2.13).

directory = libsoft
file name = libconfers.txt;9

6. Searching interactively online.

As the number of discussion groups has grown the directories have become too large and unwieldy to use in printed format. An alternate method is to search the lists electronically. The only place this is currently available is at NDSUVM1 (or VM1.NoDak.EDU).

Instructions on how to search this database are in the document LISTSOF LISTS available from listserv at ndsuvm1.

7. Directory of Electronic Journals, Newsletters, and Scholarly Discussion Lists, 2nd ed., edited by Michael Strangelove and Diane Kovacs, Association of Research Libraries: Chicago, March 1992.

This 8 1/2" x 11" format paper-bound book has grown by nearly 50% since it was first published in June 1991. It is available for $25 (prepaid) from

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